International Journal of Faith Community Nursing

Volume 4 | Issue 1 Article 2

April 2018

Exploring Standardized Nursing Languages: Moving Toward a Faith Community Nursing Intervention

Deborah J. Ziebarth
Herzing University

Standardized Nursing Language

Standardized nursing language is a "…common language, readily understood by all nurses, to describe care" (Keenan, 1999, p. 12). Standardized nursing languages are used to describe assessments, interventions, and outcomes of nursing care. One of the benefits of using a standardized nursing language is that nurses from different specialties, geographic areas, or countries use understood terminologies. Other benefits are increased visibility of nursing interventions, improved patient care, enhanced data collection to evaluate nursing care outcomes, greater adherence to standards of care, and facilitated assessment of nursing competency (Rutherford, 2008). The aim of this review is to examine three standardized nursing languages with specific interest in how faith community nursing has been described. This integrative literature review is in preparation for a research study describing transitional care interventions as implemented by faith community nurses using a standardized nursing language. Research questions are:

1. What are general descriptions, recognitions, populations, translations, reliability/validation/utility, and components of the Omaha System, the Nursing Intervention Classification, and the International Classification for Nursing Practice?
2. What standardized nursing language(s) have been used to describe the practice of faith community nursing?

The standardized nursing languages examined in this integrative review of literature are the Omaha System (Martin, Elfrink, & Monsen, 2005), the Nursing Intervention Classification (Bulechek, Butcher, Dochterman, &Wagner, 2013), and the International Classification for Nursing Practice (Ruland, 2001). The Nursing Intervention Classification has two complementary parts that are often linked: North American Nursing Diagnosis Association (2005) and Nursing Outcomes Classification (Moorhead, 2006). The North American Nursing Diagnosis and Nursing Outcomes Classification will not be included as part of this work being that the focus is on nursing interventions. The Omaha System (Martin et al., 2005), the Nursing Intervention Classification (Bulechek et al., 2013) and the International Classification for Nursing Practice System (Ruland, 2001) are all recognized by the American Nurses Association (ANA) as standardized nursing languages. In addition, they are included in the Metathesaurus of the Unified Medical Language System (UMLS) of the US National Library of Medicine (Rutherford, 2008).

History

The first standardized nursing language, the North American Nursing Diagnosis (NANDA), was introduced in 1973 (North American Nursing Diagnosis Association, 1996). The ANA asserts that since then, several more languages have been developed. The Nursing Minimum Data Set (NMDS) was developed in 1988 (Prophet & Delaney, 1998). It was followed by the Nursing Management Minimum Data Set (NMMDS) in 1989 (Huber, Schumacher, & Delaney, 1997). The Home Health Care Classification (HHCC), also referred to as the Clinical Care Classification was developed in 1991 (Saba, Hovenga, Coenen, McCormick, & Bakken, 2003) and the Omaha System (OS) was developed in 1992 (Martin & Scheet, 1992). The Nursing Intervention Classification (NIC) was also published in 1992 (McCloskey & Bulechek, 1996b). It was followed by the Nursing Outcomes Classification (NOC) (Johnson & Maas, 1998) and the

Patient Care Data Set (PCDS) (Hyun & Park, 2002). The International Council of Nurses developed the International Classification for Nursing Practice (ICNP) in 1993 (Clark, 1999).

Evaluation and Recognition

In 1992, a committee of the ANA, Nursing Practice Information Infrastructure (NPII), was formed (Rutherford, 2008). Its mission was to evaluate and recognize nursing languages using certain criteria. The language provides a rationale for its development and supports the nursing process by providing clinically useful terminology (Rutherford, 2008). In addition, there must be documentation of utility, validity, and reliability and a "…named group who will be responsible for maintaining and revising the system must exist" (Thede & Sewell, 2010, p. 293). In 1993, ANA recognized the NANDA Taxonomy (Kim, Coenen, Hardiker & Bartz, 2011) as the first standardized language for nursing. The ANA has recognized a total of thirteen standardized languages, one of which has been retired. Two of the languages are data sets, seven are nursing specific, and two are interdisciplinary (Kim et al., 2011).

The Nursing Information and Data Set Evaluation Center (NIDSEC) evaluates languages used by information system vendors. These vendors use languages that support documentation on a nursing information system or computerized patient record system. The criteria used by the ANA to evaluate how standardized languages are implemented, includes (a) how the terms can be connected, (b) how easily the records can be stored and retrieved and (c) how well the security and confidentiality of the records are maintained (Rutherford, 2008). The recognition is valid for three years and a new application must be submitted for further recognition.

Methodology

The method chosen for this study is an integrative literature review. The integrative literature review is a distinctive form of research that generates new knowledge about a topic reviewed (Torraco, 2005). New salient knowledge emerges when literature is examined for what is known. An integrative literature review

> …addresses emerging topics that benefit from a holistic conceptualization and synthesis of the literature to date or to saturation. Because relatively new topics have not yet undergone a comprehensive review of the literature, the review is more likely to lead to an initial or preliminary conceptualization of the topic (Torraco, 2005, p. 357).

An integrative literature review was done using the search engines available through the University of Wisconsin, Milwaukee, which accesses databases such as JSTOR Archival Journals, Wolters Kluwer - Ovid - Lippincott Williams & Wilkins, University of Chicago Press Journals, and MEDLINE/PubMed. The keywords used for the initial search were "standardized nursing languages". Articles were sought from the last 20 years. A total of 292 articles were found. In addition, when keywords: standardized nursing language and faith community nursing were entered, 72 articles were found. After abstracts were read, articles containing pertinent information to answer the research questions were selected. Pertinent information included general descriptions, recognitions, populations, translations, reliability/validation/utility, and components of the Omaha System (OS), the Nursing Intervention Classification (NIC), and the International Classification for Nursing Practice (ICNP). In addition, the OS, NIC, and ICNP respective websites were visited. Websites provided general information and additional references. A total of 26 articles were selected to answer the research questions.

A descriptive matrix template (Marsh, 1990) was used to conceptualize and synthesize the literature. The matrix is a spatial representation of compacted data. Column headings were OS, NIC, and ICNP. Specific data collected in the template rows included headings of general descriptions, recognitions, populations, translations, reliability/validation/utility, and components. Not every standardized nursing language had information regarding each of the row headings. In addition to the row headings of general descriptions, recognitions, populations, translations, reliability/validation/utility, and components, FCN intervention descriptions were collected in the matrix. The matrix was used to succinctly summarize the literature review that is presented in the result's section.

Results

The Omaha System

General description, populations, and translations. The OS is a standardized taxonomy designed to document and enhance nursing practice (Martin & Scheet, 1992). It was initially developed for multidisciplinary staff members employed in home care, public health, and school health practice settings, as well as educators (Martin & Scheet, 1992). Current users include nurses, physical therapists, occupational therapists, speech and language pathologists, social workers/counselors, physicians, registered dieticians, recreational therapists, chaplains, pharmacists, community health workers, chiropractors, and other health care providers (Correll & Martin, 2009; Topaz, Golfenshtein, & Bowles, 2013). The OS has been translated into Dutch, Japanese, Chinese, Swedish, Korean, Slovene, Spanish, Turkish, German, Estonian, and Thai (Martin, 2005; Martin & Scheet, 1992; Topaz et al., 2013). The OS remains in the public domain and is free for all to use.

Recognition. The OS was recognized by ANA in 1992, and passed the Healthcare Information Technology Standards Panel Tier 2 selection criteria in 2007 (Monsen, 2015). The OS is integrated into the five-digit Health Insurance Portability and Accountability Act codes used by licensed and non-licensed healthcare practitioners on standard healthcare claim forms, the NIDSEC, a database for identifying medical laboratory observations, CINAHL, and the Systemized Nomenclature of Medicine (SNOMED). The OS is registered and recognized by Health Level Seven, which is an international standard for transfer of clinical and administrative data between software applications used by various healthcare providers. The Health Level Seven is congruent with the reference terminology model for the International Organization for Standardization (IOS). Additionally, it met Medicare/Medicaid, Joint Commission guidelines and regulations. Being designed to be computer-compatible from the onset, it was transitioned early by computer software vendors. There are currently more than 9000 multidisciplinary practitioners, educators, and researchers using the OS point-of-care software (Monsen, 2015; Topaz et al., 2013).

Reliability/validation/utility. Initial research for OS was conducted during four federally-funded projects between 1975 and 1992 (Martin & Scheet, 1992). Numerous studies have been conducted since then. In a recent systematic review, 56 publications on the OS were identified and analyzed (Topaz et al., 2013). The results of the review indicated that "…about half of the publications on the OS focused on the analysis of client out-comes (29%), clinical processes (9%), and client problems (13%)" (p. 166). There was a fourfold increase in the

average number of articles published each year compared with a previous systematic review completed in 2005 (Martin, 2005; Topaz et al., 2013).

Monsen, Westra, Yu, Ramadoss and Kerr (2009) compared deductive and inductive approaches to group nursing interventions in a homecare setting. Analyses was done on a computerized OS dataset that included 2862 patients from 15 homecare agencies. The researchers used intervention groupings to successfully describe hospitalization outcomes of frail and non-frail elders (Monsen, et al, 2009). Recent studies have focused on describing interventions from specialized areas of nursing practice. Areas include community, public health, maternal and child health, acute care, mental health, perioperative, home health, and student nursing (Bowles 2000; Monsen et al., 2006; Monsen et al., 2010; Martin & Norris, 1996; Monsen et al, 2009; Sloan, & Delahoussaye, 2003; Westra, Oancea, Savik, & Marek, 2010). The author was not able to locate literature testing the use of the OS to describe faith community nursing.

Components. The OS consists of three components designed to be used together: (a) Problem Classification Scheme (PCS) (client assessment), (b) Intervention Scheme (IS) (care plans and services), and (c) Problem Rating Scale for Outcomes (PRSO) (client change/evaluation) (Martin et al, 2005). In PCS, nurses collect assessment data, such as signs and symptoms, to identify patients' problems and to formulate diagnoses. The PCS consists of four domains: environmental, psycho-social, physiological, and health-related behaviors. Forty-two problems are categorized under one of the four domains, and are identified by the signs and symptoms of the problem, the focus of the problem (individual, family, or community), and whether the problem is actual, potential, or encompasses the clients' needs for health-promotion. During the IS, the intervention is implemented by the nurse. There are four intervention categories: health teaching, guidance, and counseling; treatments and procedures; case management; and surveillance. Specific nursing interventions are further delineated through the use of 75 targets. In the PRSO step, the nurse evaluates the care process by measuring its outcomes on a Likert scale in the area of knowledge, behavior, and status of each problem (Martin & Scheet, 1992).

Nursing Intervention Classification

General description. The NIC was developed at the University of Iowa in the College of Nursing's Center for Nursing Classification & Clinical Effectiveness (McCloskey & Bulechek, 1994; 1996a; 1996b). The NIC describes treatments that nurses perform in various settings, specialties, and populations. "NIC is useful for clinical documentation, communication of care across settings, integration of data across systems and settings, effectiveness research, productivity measurement, competency evaluation, reimbursement, and curricular design" (Bulechek, et al , 2013, p. 2). Each intervention includes a definition and a unique numeric code that can be used for reimbursement of nursing interventions (Lundberg et al, 2008). The NIC is used in a variety of settings, nationally and internationally. It has been translated into Chinese, Dutch, French, German, Portuguese, Japanese, Korean, and Spanish (Lundberg et al., 2008).

There are now nine vendors who have licenses for NIC in electronic format (Bulechek et al., 2013, p. 16). The NIC is recognized by the ANA, the Joint Commission, and Nursing Information and Data Set Evaluation Center as a data set that meets the uniform guidelines for information system vendors (Kim, Coenen, Hardiker, Kim et al, 2011). Vendors use NIC

electronically to develop plans of care, critical pathways, order sets, patient education and data sets for the evaluation of care at the individual or unit level (Lundberg et al., 2008). The use of the NIC in an electronic health record has facilitated the appropriate selection of nursing interventions by communicating nursing interventions to other health care providers (Lundberg et al., 2008). This standardization allows communication with other coded systems, such as SNOMED, NANDA and NOC.

Reliability/validation/utility. The NIC is being updated in an ongoing process with practice feedback, research, and practice guidelines. The NIC was first published in 1992, the second edition in 1996, the third edition in 2000, the fourth edition in 2004, the fifth edition in 2008, and the sixth edition in 2013 (Bulechek et al., 2013). A research team worked to construct, validate, and implement NIC as a standardized language for nursing interventions using a variety of qualitative and quantitative methods including content analysis, expert surveys, hierarchical analysis and multidimensional scaling (Bulechek et al., 2013). This team of researchers has been testing the usefulness of NIC and its implementation in growing numbers of client populations, information systems and educational programs (Bulechek et al., 2013). Additionally, NIC has been tested in several nursing specialties such as: acute care, intensive care, home care, hospice care, faith community nursing, community nursing, long term care, primary care, school nursing, and advanced practice (Bulechek et al., 2013; Burkhart & Androwich, 2004; Cavendish et al., 2003; Cavendish, Lunney, Luise & Richardson, 2001; Haugsdal, & Scherb, 2003; Jefferies, Johnson & Nicholls 2011; Johnson et al., 2006; Lee & Mills, 2000a; Lee & Mills, 2000b, McCloskey, Bulechek, & Donahue, 1998; O'Connor, Hameister, & Kershaw, 2000; Weis, Schank, Coenen & Matheus, 2002).

Advanced practice register nursing. O'Connor, Hameister, and Kershaw (2000) completed a study exploring and describing intervention patterns of 19 Advanced Practice Registered Nursing (APRN) students in their last clinical in primary care settings using NIC. Interventions were grouped across 26 NIC classes. All 26 intervention classes were represented in the sample (O'Connor et al., 2000). The most frequently reported NIC intervention classes were Patient Education, Drug Management, Information Management, Risk Management, Nutritional Support, Activity and Exercise, Communication, Coping Assistance, Physical Comfort Promotion, Health System Management and Behavior Therapy. The authors went on to describe which NIC interventions within each class were most frequently used within the population of patients presenting with the medical diagnoses of hypertension, diabetes mellitus, lung cancer, hyperlipidemia and urinary tract infection. Some of the most frequently recorded interventions were active listening, data interpretation, documentation, pain management, nutrition counseling, and medication prescribing (O'Connor et al., 2000).

Haugsdal and Scherb (2003) surveyed nurse practitioners (NP) in Minnesota to describe the 20 most prevalent NP interventions based on the NIC. Practicing NP in Minnesota were sent a descriptive survey using a mailed questionnaire. They were asked to describe the 20 most prevalent interventions based on NIC. Results are based on 414 (37%) useable responses. Of the 486 NIC interventions on the questionnaire, NP reported using an average of 120 interventions at least once per month. The 20 most frequently selected were reported by 71%-90% of respondents as being used at least once per month. The 20 most prevalent interventions identified in this study represent the NIC classes of patient education, drug management, information management, risk management, activity & exercise, communication enhancement, coping

assistance, physical comfort promotion, and health system management. The most frequency selected intervention classes are unique to each specialty practice and indicate the NIC to be comprehensive enough to meet the needs of a variety of APRN practices. Haugsdal & Scherb's (2003) survey results of Minnesota NPs are almost identical to the NIC classes identified by O'Connor et al, (2000). These studies validate the use of the NIC as a method of describing the APRN practice.

Faith community nursing. The author was able to find four studies using NIC to describe faith community nursing (FCN) (Burkhart & Androwich, 2004; Solari-Twadell & Hackbarth, 2010; Weis, et al, 2002; Ziebarth, 2016). The largest sample was a survey sent to nurses who had attended the standardized Basic Parish Nurse Training Program. Respondents (n = 1,161) represented all major religious denominations in 47 states (Solari-Twadell & Hackbarth, 2010). NIC (3rd ed.) was used. Of the 486 possible NIC, 417 were reported as used and were mostly clustered in the Behavioral domain. Fifty nursing interventions accounted for 80 % of the most frequently used interventions. The top 30 interventions appeared in a frequency pattern. Solari-Twadell & Hackbarth, (2010) considered these interventions to be ''core'' to FCN were defined as care that supports psychosocial functioning and facilitated lifestyle changes. Interventions included communication enhancement, coping assistance, and patient education. Respondents reported the most frequently used interventions to be active listening in the communication class and presence, touch, spiritual support, emotional support, spiritual growth facilitation, hope instillation, humor, and counseling in the coping assistance class. Religious ritual enhancement, truth telling, and values clarification, as well as assisting a person to gain self-awareness and support in decision-making were also prominent coping assistance interventions. The class of patient education was also identified with emphasis on health education and teaching disease management (Solari-Twadell & Hackbarth, 2010). The NIC was used successfully to describe the practice of FCN.

Health System was the second prominent domain and is defined as care that supports effective use of the healthcare delivery system. Frequently used interventions included documentation, telephone consultation, and telephone follow-up. The third domain identified was Family, defined as care that supports the family unit, and included the intervention of caregiver support. Within the Safety domain, interventions were defined as care that supports protection against harm and community was defined as care that supports the health of the community. Frequently used interventions included health screening and vital sign monitoring. Program development was an intervention identified from the Community domain (Solari-Twadell & Hackbarth, 2010).

The Henry Ford Health System in Michigan has developed a password-protected website documentation system for FCN with NIC embedded to describe interventions. It is used by more than 500 FCNs in 22 states (Yeaworth & Sailors, 2014). When nurses were asked why they choose NIC over other standardized languages, they stated that they are most familiar with NIC because the Henry Ford Health System uses Cerner and they were aware of FCN research studies testing NIC (Yeaworth & Sailors, 2014). Cerner is an information system vendor that uses the taxonomies of NANDA, NIC and NOC for nursing documentation (Frederick & Watters, 2003).

Standards of care. The NIC is based on standards of care from various professional organizations. For example, the NIC intervention of electronic fetal monitoring: intrapartum (Moorhead, Johnson & Maas, 2004) is supported by publications of expert authors and

researchers in the field of fetal monitoring and by standards of care from the Association of Women's Health, Obstetric and Neonatal Nurses (Coenen, Doorenbos, & Wilson, 2007; Johnson et al, 2006; Macones, Hankins, Spong, Hauth, & Moore, 2008).

Components. The NIC includes the interventions that nurses do on behalf of patients, both independent and collaborative, both direct and indirect care (Bulechek et al., 2013). An intervention is treatment, based upon clinical judgment and knowledge, which a nurse performs to enhance patient/client outcomes (Bulechek et al., 2013). The 554 interventions in NIC (6th ed.) are grouped into thirty classes and seven domains (Bulechek et al., 2013). The seven domains are: Physiological: Basic, Physiological: Complex, Behavioral, Safety, Family, Health System, and Community. The Physiological Basic domain is defined in NIC as care that supports physical functioning. Classes in this domain include management and facilitation of activity and exercise, elimination, immobility, nutrition, physical comfort, and self-care. The Physiological: Complex domain is defined in NIC as care that supports homeostatic regulation. Classes in this domain include management of electrolytes and acid-base levels, drugs, neurologic status, perioperative care, respiratory status, skin and wounds, thermoregulation, and tissue perfusion. The third domain is Behavioral, defined by NIC as care that supports psychosocial functioning and facilitates lifestyle changes. It includes the classes of behavior therapy, cognitive therapy, communication enhancement, coping assistance, patient education, and psychological comfort promotion. The fourth domain is Safety, defined by NIC as care that supports protection against harm. Relevant classes are crisis and risk management. The fifth domain, Family, is defined by NIC as care that supports the family unit. Relevant classes include childbearing care and lifespan care. The sixth and final domain is Health System, defined by NIC as care that supports effective use of the healthcare delivery system. Three classes constitute this domain, namely, health system mediation, health system management, and information management (Bulechek et al., 2013).

International Classification for Nursing Practice

General description. The ICNP has been a project of the International Council of Nurses (ICN) since 1990 (Clark, 1998). The ICN is a federation of national nurse's associations of more than 120 country members (Jean-Marteau, 2015). The ICNP is defined as a classification of nursing phenomena, nursing actions, and nursing outcomes that describe nursing practice and that the core aspects of nursing practice are shared across countries (Goossen et al., 1998). The ICNP defines nursing as: "…encompassing autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles" (International Council of Nurses, 2017). The vision of the ICNP program is to have nursing data readily available and used in health care information systems worldwide. To achieve this vision, objectives and committee activities were organized to address (a) communication and dissemination, (b) research and development, and (c) coordination and program management (Bartz, 2011; Coenen, 2003).

The ICNP is referred to as a combinatorial terminology for nursing practice in that it provides a unifying framework to cross-map standardized nursing languages using very broad terminology to represent the dynamic nature of nursing and the cultural variation in practice globally (Coenen

& Kim, 2010; Coenen, Marin, Park & Bakken, 2001; Goossen, 2006). A Unified Nursing Language System (UNLS) does not replace but contains existing classifications (Hyun & Park, 2002). A UNLS provides mapping capability from one classification to another. The ICNP multi-axial structure is conducive to developing a UNLS. In the second version, the ICNP is able to describe many of the existing terms in nursing classification. Therefore, the ICNP is considered to be a UNLS (Hyun & Park, 2002).

Cross-mapping and components. Cross-mapping has occurred with several existing nursing classification systems such as the OS and the NIC. Interventions of the NIC, the HHCC and the OS were cross-mapped to the ICNP nursing action classification based on the Guidelines for Composing a Nursing Intervention (Hyun & Park, 2002). After cross mapping, it was recommended that 102 codes would be added to the nursing action classification target axis and 17 terms to the action-type axis. In the action-type axis, all except one term (i.e. modifying) was added from the NIC because the OS uses similar terminology (Hyun & Park, 2002).

Through progressive cross-mapping, there has been four versions of the ICNP:
1. Version One, Alpha in1999, was comprised of nursing phenomena - arranged as a hierarchy: (a) Human being (functions and person), (b) Environment (human and nature) and Nursing Interventions organized along multiple axes: (a) action types, (b) objects, (c), approaches, (d) means, (e) body, and (f) time/place. Developers at the time noted that nursing outcomes would be included with next version (Wake & Coenen, 1998).
2. Version Two, Beta in 2000, expanded on the use of a multi-axial approach. Two multi-axial models were proposed: An 8-Axis Model for Nursing Phenomena: (a) Nursing Practice, (b) Judgment, (c) Frequency, (d) Duration, (e) Topology, (f) Body Site, (g) Likelihood, and (h) Bearer and an 8-Axis Model for Nursing Actions: (a) Action Type, (b) Target, (c) Means, (d) Time, (e) Topology, (f) Location, (g) Routes, and (h) Beneficiary (Ruland, 2001).
3. Version Three, Beta 2 in 2005, definitions for nursing diagnosis, outcome, and action, were developed for composing a nursing diagnosis, nursing outcome and nursing intervention using multi-axial models (Dal Sasso, Peres, & Silveira, 2005).
4. Version Four, ICNP in 2011, was released with nursing diagnosis, intervention, and outcome statements included for better clarity (Bartz, 2011; Garcia & Nóbrega, 2013).

The global nursing reference terminology model, focuses on conceptual structures (Bakken, Parker, Konicek, & Campbell, 2000; International Standards Organization, 2000; 2001). The reference terminology model for nursing diagnoses has four descriptors, namely focus, judgment, site, and subject of information. The intent is that the model will not only support representation of nursing concepts and mediation, but that it will integrate with other International Standards Organization (ISO) models for health care concepts (Bakken et al., 2000).

Reliability/validation/utility. There have been several studies that have sought to develop and evaluate the ICNP in nursing (Antunes, 2006; Barra & Dal Sasso, 2011; Dal Sasso et al, 2013; Dal Sasso, Peres, & Silveira, 2005; Gomes, Souza, Belian & Vasconcelos, 2010; Zabotti & Souza, 2002). In 2006, Antunes used the electronic ICNP Version 1.0 to describe nursing care in the acute care setting. The interface, content, and data security were rated as very good by study participants. The study concluded that the web-based computerized system is an information system structure that promotes the organization, control, and logical visualization of nurses' clinical reasoning during patient care (Antunes, 2006).

Discussion

The OS, NIC, and ICNP are all ANA recognized standardized nursing languages. They were developed to describe what the nurses do in a variety of specialties and settings both nationally and internationally. The OS and the ICNP include a nursing diagnosis and outcomes component that is considered internal and inclusive. The NIC is considered a separate classification from its counterparts, NANDA and NOC. The OS and NIC are both described as standard taxonomies initially designed to document and enhance nursing practice in the United States but have been translated into multiple languages for use in other countries. Components of the OS, NIC, and ICNP have extensive descriptors of nursing interventions, which give clarity to those that use them. The ICNP is considered to be an UNLS, which contains existing taxonomies such as the OS and NIC. Since cross-mapping has occurred between the OS and ICNP and the NIC and ICNP, the ICNP has successfully integrated components of the OS and NIC. Extensive testing of the ICNP is occurring in multiple specialties and countries. All three standardized languages use research results for revisions and reliability.

The author did not find literature to support the use of one standardized language over another to describe the specialty practice of FCN. There was a lack of FCN research using OS, which suggest a gap with exploratory potential. The presence of FCN research utilizing NIC suggest nurses are familiar with NIC. Additionally, the NIC is able to describe FCN interventions. Since a future study aims to describe transitional care interventions as implemented by faith community nurses using a recognized taxonomy, using NIC might be advantageous. The ICNP has been cross-mapped with both the OS and NIC but to date, has not been used to describe FCN.

Conclusion

The goal of this paper was to examine the OS, NIC, and ICNP in preparation for a research study describing transitional care interventions as implemented by faith community nurses using a recognized taxonomy. Literature containing general descriptions, recognitions, populations, translations, reliability/validation/utility, and components of the OS, NIC, and ICNP was examined to answer the research questions. There was a lack of FCN research using OS. Three articles were found that described FCN using NIC. The ICNP has been cross-mapped with both the OS and NIC but has not been tested in FCN. There is an overall lack of FCN research using standardized nursing languages.

References

Antunes, C. R. (2006). Processo de enfermagem informatizado ao paciente politraumatizado De terapia intensiva via web [dissertação]. [Process of computerized nursing to the polytraumatized patient Intensive therapy via web [dissertation]]. *(SC): Universidade Federal de Santa Catarina, Programa de Pós-Graduação emEnfermagem*

Bakken, S., Parker, J., Konicek, D., & Campbell, K. E. (2000). An evaluation of ICNP intervention axes as terminology model components. *In Proceedings of the AMIA Symposium* (p. 42). Symposium conducted at the meeting of the American Medical Informatics Association.

Barra, D.C.C., & Dal Sasso, G. T. M. (2011). Data standards, terminology and classification systems for caring in health and nursing. *Rev. bras. enferm. [online]*, *64*(6), 1141-1149. doi: 10.1590/S0034-7167001000600023.

Bartz, C. C. (2011). *ICNP & eHealth: History and possibilities.* Paper presented at the 23rd International Conference of European Federation for Medical Informatics on International Classification for Nursing Practice and eHealth, Oslo, Norway. Presentation retrieved from http://www.icn.ch/what-we-do/icnpr-conference-presentations/

Bowles, K. H. (2000). Application of the Omaha System in acute care. *Research in Nursing & Health*, 23(2), 93-105. doi:10.1002/(SICI)1098-240X(200004)23:2<93:AID-NUR2>3.0.CO;2-K

Bulechek, G. M., Butcher, H. K., Dochterman, J. M. M., & Wagner, C. (2013). *Nursing interventions classification (*NIC) (6th ed.). St. Louis, Missouri: Mosby, Inc.

Burkhart, L., & Androwich, I. (2004). Measuring the domain completeness of the nursing interventions classification in parish nurse documentation. *Computers Informatics Nursing*, *22*(2), 72-82. Retrieved from http://journals.lww.com/cinjournal/pages/default.aspx

Cavendish, R., Konecny, L., Mitzeliotis, C., Russo, D., Luise, B. K., Medeíindt, J., & Bajo, M. A. M. (2003). Spiritual care activities of nurses using nursing interventions classification (NIC) labels. *International Journal of Nursing Terminologies and Classifications*, *14*(4), 113-124. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.uwm.edu/ehost/pdfviewer/pdfviewer?sid=e088c794-7f41-494f-83ae-b70e143212cd%40sessionmgr4008&vid=1&hid=4212

Cavendish, R., Lunney, M., Luise, B. K., & Richardson, K. (2001). The nursing outcomes classification: Its relevance to school nursing. *The Journal of School Nursing*, *17*(4), 189-197. doi:10.1177/10598405010170040401

Clark, D. J. (1999). A Language for Nursing. *Nursing Standard*, *13* (31), 42–47. doi:10.7748/ns1999.04.13.31.42.c7470

Clark, J. (1998). The international classification for nursing practice project. *Online Journal of Issues in Nursing*, *3*(2). Retrieved from http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol31998/No2Sept1998/TheInternationalClassificationForNursingPracticeProject.html

Coenen, A. (2003). The International Classification for Nursing Practice (ICNP®) programme: Advancing a unifying framework for nursing. *Online Journal of Issues in Nursing*, *3*. Retrieved from http://www.nursingworld.org/OJIN

Coenen, A., Doorenbos, A. Z., & Wilson, S. A. (2007). Nursing interventions to promote dignified dying in four countries. In *Oncology Nursing Forum, 34*(6), 1151-1156. doi: 10.1188/07.ONF.1151-1156

Coenen, A., & Kim, T. Y. (2010). Development of terminology subsets using ICNP®. *International Journal of Medical Informatics*, *79*(7), 530-538. doi: 10.1016/j.ijmedinf.2010.03.005

Coenen, A., Marin, H. F., Park, H. A., & Bakken, S. (2001). Collaborative efforts for representing nursing concepts in computer-based systems international perspectives. *Journal of the American Medical Informatics Association, 8*(3), 202-211. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC131028/pdf/0080202.pdf

Correll, P. J., & Martin, K. S. (2009). The Omaha system helps a public health nursing organization find its voice. *Computers Informatics Nursing*, *27*(1), 12-16. doi: 10.1097/01.NCN.0000336468.02564.cc

Dal Sasso, G. T., Barra, D. C., Paese, F., Almeida, S. R., Rios, G. C., Marinho, M. M., & Debétio, M. G. (2013). Computerized nursing process: methodology to establish associations between clinical assessment, diagnosis, interventions, and outcomes. *Revista da Escola de Enfermagemda USP*, *47*(1), 242-249. doi:10.1590/S0080-62342013000100031.

Dal Sasso, G. T., Peres, H. C., & Silveira, D. T. (2005). Computerized nursing process in critical care unit using the ICNP—Beta 2. *Studies in Health Technology and Informatics, 122*, 1021-1023. Retrieved from http://ebooks.iospress.nl/publication/9499

Frederick, J., & Watters, M. (2003). Integrating nursing acuity, NANDA, NIC, and NOC into an automated nursing documentation system. *International Journal of Nursing Terminologies and Classifications, 14*(4), 26. doi: 10.1111/j.1744-618X.2003.023_5.x

Garcia, T. R., & Nóbrega, M. M. L. D. (2013). The ICNP® terminology and the Brazilian ICNP® Centre participation on its development and dissemination. *Revista brasileira de enfermagem, 66*(SPE), 142-150. doi: 10.1590/S0034-71672013000700018

Gomes, R. L. V., de Souza, R. K. A. G., Belian, R. B., & de Vasconcelos, E. M. R. (2010). Systematization of nursing care in the hospital: Construction of a system applied to academic practice. *Journal of Nursing UFPE on line*, *4*(4), 1914-1921. doi:10.5205/01012007

Goossen, W. T., Epping, P. J., Feuth, T., Dassen, T. W., Hasman, A., & van den Heuvel, W. J. (1998). A comparison of nursing minimal data sets. *Journal of the American Medical Informatics Association, 5*(2), 152-163. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC61286/pdf/0050152.pdf

Goossen, W. (2006). Cross-Mapping between Three Terminologies with the International Standard Nursing Reference Terminology Model. *International Journal of Nursing Terminologies and Classifications, 17*(4), 153-164. doi:10.1111/j.1744-618X.2006.00034.x

Haugsdal, C. S., & Scherb, C. A. (2003). Using the nursing interventions classification to describe the work of the nurse practitioner. *Journal of the American Academy of Nurse Practitioners, 15*(2), 87-94. Retrieved from http://web.b.ebscohost.com.ezproxy.lib.uwm.edu/ehost/pdfviewer/pdfviewer?sid=def158d8-5c16-475d-91d6-ea394c00f3cb%40sessionmgr104&vid=1&hid=123

Huber, D., Schumacher, L., & Delaney, C. (1997). Nursing management minimum data set (NMMDS). *Journal of Nursing Administration*, *27*(4), 42-48. Retrieved from http://journals.lww.com/jonajournal/pages/default.aspx

Hyun, S., & Park, H. A. (2002). Cross-mapping the ICNP with NANDA, HHCC, Omaha System and NIC for unified nursing language system development. *International Nursing Review*, *49*(2), 99-110. Retrieved from http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1466-7657

Jean-Marteau, 2015. Credential. Web document. Information sheet, n.d. www.icn.ch.

Jefferies, D., Johnson, M., & Nicholls, D. (2011). Nursing documentation: How meaning is obscured by fragmentary language. *Nursing Outlook*, *59*(6), e6-e12. doi: 10.1016/j.outlook.2011.04.002

Johnson, M., & Maas, M. (1998). The nursing outcomes classification. *Journal of Nursing Care Quality*, *12*(5), 9-20. Retrieved from http://journals.lww.com/jncqjournal/pages/default.aspx

Johnson, K., Posner, S. F., Biermann, J., Cordero, J. F., Atrash, H. K., Parker, C. S., ... & Curtis, M. G. (2006). Recommendations to improve preconception health and health care—United States. *Morbidity and Mortality Weekly Report*, *55*(4), 1-23. Retrieved from https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5506a1.htm

Keenan, G. M. (1999). Use of standardized nursing language will make nursing visible. *The Michigan Nurse*, *72*(2), 12-13. Retrieved from https://www.ncbi.nlm.nih.gov/labs/journals/mich-nurse/

Kim, T. Y., Coenen, A., Hardiker, N., & Bartz, C. C. (2011). Representation of nursing terminologies in UMLS. *American Medical Informatics Association (AMIA) Annual Symposium Proceedings*, *2011*, 709–714. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3243214/

Lee, T., & Mills, M. E. (2000a). The relationship among medical diagnosis, nursing diagnosis, and nursing intervention and the implications for home health care. *Journal of Professional Nursing*, *16*(2), 84-91.doi: 10.1016/S8755-7223(00)80020-4

Lee, T., & Mills, M. E. (2000b). Analysis of patient profile in predicting home care resource utilization and outcomes. *Journal of Nursing Administration*, *30*(2), 67-75. Retrieved from http://journals.lww.com/jonajournal/pages/default.aspx

Lundberg, C., Warren, J., Brokel, J., Bulechek, G., Butcher, H., McCloskey Dochterman, J., ... & Giarrizzo-Wilson, S. (2008). Selecting a standardized terminology for the electronic health record that reveals the impact of nursing on patient care. *Online Journal of Nursing Informatics*, *12*(2), 1-20. Retrieved from http://ojni.org/12_2/lundberg.pdf

Macones, G. A., Hankins, G. D., Spong, C. Y., Hauth, J., & Moore, T. (2008). The 2008 National Institute of Child Health and Human Development workshop report on electronic fetal monitoring: Update on definitions, interpretation, and research guidelines. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *37*(5), 510-515. doi: 10.1097/AOG.0b013e3181841395

Marsh, G. W. (1990). Refining an emergent life-style-change theory through matrix analysis. *Advances in Nursing Science*, *12*(3), 41-52.

Martin, K. S. (Ed.). (2005). *The Omaha System: A key to practice, documentation, and information management*. St. Louis, MO: Elsevier Health Sciences.

Martin, K. S., & Scheet, N. J.(Eds.). (1992). *The Omaha System: Applications for community health nursing.* St. Louis, Mo: WB Saunders Co.

Martin, K. S., Elfrink, V. L., & Monsen, K. A. (2005). The Omaha System. *A key to practice, documentation, and information management*. Omaha, NE: Health Connections Press

Martin, K. S., & Norris, J. (1996). The Omaha System: A model for describing practice. *Holistic Nursing Practice*, *11*(1), 75-83.

McCloskey, J. C., & Bulechek, G. M. (Eds.) (1994). Standardizing the language for nursing treatments: An overview of the issues. *Nursing Outlook*, *42*(2), 56-63. doi: 10.1016/S0029-6554(06)80022-9

McCloskey, J. C., & Bulechek, G. M. (1996a). *Iowa intervention project. Nursing Interventions Classification (NIC)* (2nd Ed.). St. Louis, Baltimore. Mosby

McCloskey J. C., & Bulechek, G. M. (Eds.). (1996b). Nursing *Interventions Classification (NIC) (*2nd ed.). St. Louis, MO: Mosby

McCloskey, J. C., Bulechek, G. M., & Donahue, W. (1998). Nursing interventions core to specialty practice. *Nursing Outlook*, *46*(2), 67-76.

McCloskey, J. C., Dochterman, J., & Bulechek, G. M. (2004). *Surveillance: Safety nursing interventions classification* (4th ed.). St. Louis, MO, Mosby.

Monsen, K. A. (2015). *Solving the data information puzzle.* Retrieved from http://www.omahasystem.org/

Monsen, K. A., Fitzsmmons, L. L., Lescenski, B. A., Lytton, A. B., Schwichtenberg, L. D., & Martin, K. S. (2006). A public health nursing informatics data-and-practice quality project. *Computers, Informatics, Nursing*, *24*(3), 152-158. Retrieved from http://journals.lww.com/cinjournal/pages/default.aspx

Monsen, K. A., Fulkerson, J. A., Lytton, A. B., Taft, L. L., Schwichtenberg, L. D., & Martin, K. S. (2010). Comparing maternal child health problems and outcomes across public health nursing agencies. *Maternal and Child Health Journal, 14*(3), 412-421. doi: 10.1007/s10995-009-0479-9

Monsen, K. A., Westra, B. L., Yu, F., Ramadoss, V. K., & Kerr, M. J. (2009). Data management for intervention effectiveness research: Comparing deductive and inductive approaches. *Research in Nursing & Health, 32*(6), 647-656. doi: 10.1002/nur.20354

Moorhead, S. (2006). Nursing outcomes classification (NOC). In J. J. Fitzpatrick & M. W. Kazer (Eds.), *Encyclopedia for Nursing Research* (pp. xx-xx). NewYork: Springer.

Moorhead, S., Johnson, M., & Maas, M. (2004). *Nursing outcomes classification* (NOC) (3rd ed.). St. Louis, MO: Mosby.

North American Nursing Diagnosis Association. (1996). *NANDA nursing diagnoses: Definitions and classification, 1997-1998.* Philadelphia, PA: North American Nursing Diagnosis Association.

North American Nursing Diagnosis Association. (2005). *NANDA nursing diagnoses: Definitions and classification, 2005-2006*. Philadelphia, PA: North American Nursing Diagnosis Association.

O'Connor, N. A., Hameister, A. D., & Kershaw, T. (2000). Application of standardized nursing language to describe adult nurse practitioner practice. *International Journal of Nursing Terminologies and Classifications*, *11*(3), 109-120. doi: 10.1111/j.1744-618X.2000.tb00400.x

Prophet, C. M., & Delaney, C. W. (1998). Nursing outcomes classification: Implications for nursing information systems and the computer-based patient record. *Journal of Nursing Care Quality, 12*(5), 21-29. Retrieved from http://journals.lww.com/jncqjournal/pages/default.aspx

Ruland, C. M. (2001). Evaluating the Beta version of the International Classification for Nursing Practice® for domain completeness, applicability of its axial structure and utility in clinical practice: A Norwegian project. *International Nursing Review*, *48*(1), 9-16. doi: 10.1046/j.1466-7657.2001.00060.x

Rutherford, M. (2008). Standardized nursing language: What does it mean for nursing practice? *The Online Journal of Issues in Nursing*, *13*(1). Retrieved from http://www.nursingworld.org/OJIN

Saba, V. K., Hovenga, E., Coenen, A., McCormick, K., & Bakken, S. (2003). Nursing language–terminology models for nurses. *The International Organization for Standardization Bull, 34*, 16-18.

Sloan, H. L., & Delahoussaye, C. P. (2003). Clinical application of the Omaha System with the Nightingale Tracker®: A community health nursing student home visit program. *Nurse Educator*, *28*(1), 15-17. Retrieved from http://journals.lww.com/nurseeducatoronline/pages/default.aspx

Solari-Twadell, P. A., & Hackbarth, D. P. (2010). Evidence for a new paradigm of the ministry of parish nursing practice using the nursing intervention classification system. *Nursing Outlook*, *58*(2), 69-75. doi: 10.1016/j.outlook.2009.09.003

Thede, L. Q., & Sewell, J. P. (2010). *Informatics and nursing: Competencies and applications* (3rd Ed.). Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Topaz, M., Golfenshtein, N., & Bowles, K. H. (2013). The Omaha System: A systematic review of the recent literature. *Journal of the American Medical Informatics Association, 21*(1), 163-170. doi: 10.1136/amiajnl-2012-001491

Torraco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, *4*(3), 356-367. Retrieved from http://journals.sagepub.com.ezproxy.lib.uwm.edu/doi/pdf/10.1177/1534484305278283

Wake, M., & Coenen, A. (1998). Nursing diagnosis in the International Classification for Nursing Practice (ICNP). *International Journal of Nursing Terminologies and Classifications*, 9(4), 111-118. doi: 10.1111/j.1744-618X.1998.tb00155.x

Weis, D. M., Schank, M. J., Coenen, A., & Matheus, R. (2002). Parish nurse practice with client aggregates. *Journal of Community Health Nursing*, *19*(2), 105-113. doi: 10.1207/S15327655JCHN1902_05

Westra, B. L., Oancea, C., Savik, K., & Marek, K. D. (2010). The feasibility of integrating the Omaha system data across home care agencies and vendors. *Computers, Informatics, Nursing*, *28*(3), 162. doi: 10.1097/NCN.0b013e3181d7812c

Yeaworth, R. C., & Sailors, R. (2014). Faith community nursing: Real care, real cost savings. *Journal of Christian Nursing*, *31*(3), 178-183. doi: 10.1097/CNJ.0000000000000075

Zabotti, C., & Souza, J. (2002). Metodologia eletrônica de cuidados de enfermagem aos pacientes Em terapia intensiva com alterações respiratórias utilizando a CIPE [monografia]. [Electronic nursing care methodology for intensive care patients with respiratory disorders using CIPE [monograph]]. Palhoça: Faculdade de Enfermagem, Universidade do Sul de Santa Catarina.

Ziebarth, D. J. (2016). *Transitional care interventions as implemented by faith community nurses.* (Doctoral dissertation). Available from University of Wisconsin Milwaukee Digital Commons. (ETD No. 1237). Retrieved from http://dc.uwm.edu/etd/1237